

**REMARKS**

Applicants have carefully reviewed the FINAL Office Action issued October 6, 2008. Claims 1-7, 9-12 and 14 were pending herein. By this Amendment, claim 1 has been amended to define the feature: "a fluoridation carbon film . . . is a chemical compound of carbon and fluorine" and to clarify that "hydrogen atoms are included as impurities in the fluoridation carbon film." Applicants wish to thank the Examiner for his indication that claims 3-5 contain allowable subject matter. Claims 6-17 are now all cancelled. Consequently, only claims 1-5 remain pending. Only the rejection of claims 1 and 2 is at issue.

Independent claim 1 has been, in part, amended to recite "a chemical compound of carbon and fluorine" as supported, for example, by element 2 of FIG. 1 and paragraph [0038] while paragraphs [0016] and [0038] to [0039] of the present published application support the limited amount of hydrogen as an impurity as recited.

In view of the remarks herein, Applicants respectfully request reconsideration and withdrawal of the rejections set forth in the FINAL Office Action of claims 1 and 2.

**I. Rejection of Claims 1-2**

Claims 1-2 are rejected under 35 U.S.C. §103(a) as being unpatentable over Vincent et al. (U.S. 2002/0142579), hereinafter, "Vincent".

The Examiner suggests that Vincent discusses a fluoridation carbon film which contains an amount of hydrogen between 0 and 60 atomic percent where the 0-3 atomic percent amount claimed is alleged to be a range determinable by "only routine skill in the art." To the contrary, it is clearly disclosed at paragraph [0039]: "it is possible to restrain the amount of hydrogen captured in the fluoridation carbon film 3 to 3 atomic % or less. The value is based on examples, which are set forth below. The amount of the hydrogen atoms included in the source gas is obtained by a calculation from a measured value of water content included in the source gas. In direct definition by the water content, the water content included in the source gas is preferably 0.5 weight ppm or less (then, a calculated value of the hydrogen atoms in the source gas is  $1.17 \times 10^{-3}$  atomic % or less), more preferably 0.1 weight ppm or less. Thus, the Examiner is requested

to reconsider the rejection of independent claim 1 based on *In re Aller* on the grounds that Applicants have shown that the recited range is not determinable by “only routine skill in the art.” To the contrary, the present specification is devoted to demonstrating by way of several examples that the range has been achieved through extensive experimentation and is patentable over Vincent.

Moreover, it is respectfully submitted that the insulation film described by Vincent et al. (US 2002/0142579), hereinafter “Vincent,” does not consist of “a fluoridation carbon film that is a compound of carbon and fluorine” (Applicants’ emphasis added) as claim 1 has been amended. From our reading of Vincent, the insulation film compound discussed in each example always includes silicon atoms. To the contrary, the insulation film of the presently amended claim 1 does not contain any silicon. As claimed, the “fluoridation carbon film . . . is a compound of carbon and fluorine.”

Also, from our reading of Vincent, the insulation film includes hydrogen as a regular constituent and there is no attempt to reduce its content. Claim 1 has been further amended to clarify that “hydrogen atoms are included as impurities in the fluoridation carbon film” (Applicants’ emphasis added). Such is not the case in Vincent.

Applicants respectfully submit that Vincent does not render claims 1-2 obvious. The Examiner appears to be utilizing improper hindsight to suggest that one of ordinary skill in the art would be led by Vincent alone to achieve a fluoridation carbon film that is a chemical compound of carbon and fluorine wherein hydrogen atoms are included as impurities in the fluoridation carbon film . . . and an amount of the hydrogen atoms included in the fluoridation carbon film is not more than 3 atomic % and more than 0 atomic %.” There must be an articulated reason for leading the routineer to the claimed invention. Here, the routineer is not led to the invention – rather the routineer is led away from the invention to include silicon in a compound and to utilize hydrogen as a regular component.

Independent claim 1 is thus allowable at least for reciting “a chemical compound including hydrogen atoms as impurities” and “hydrogen atoms . . . not more than 3 atomic weight% and more than 0 atomic weight%” and for the feature defining the “chemical compound

of carbon and fluorine not discussed or suggested by Vincent. Dependent claim 2 is allowable for at least the reasons that independent claim 1 is allowable.

**II. Rejection of claims 6-7, 9, 12 and 14**

Only claims 1-5 remain pending thus rendering the rejections of claims 6-7, 9, 12 and 14 moot.

**III. Conclusion**

In view of the remarks herein, Applicants respectfully request that the rejections set forth in the Office Action of October 6, 2008, be withdrawn and that claims 1-2 along with claims 3-5 be allowed to pass to issue. The Examiner is invited to contact the undersigned in the event the Examiner wishes to propose alternative language for allowance of claim 1 to patentably distinguish over Vincent.

If any additional fees under 37 C. F. R. §§ 1.16 or 1.17 are due in connection with this filing, please charge the fees to Deposit Account No. 02-4300, Order No. 033082M300.

Respectfully submitted,  
SMITH, GAMBRELL & RUSSELL, LLP

By: \_\_\_\_\_ /Thomas H. Jackson/  
Thomas H. Jackson, Reg. No. 29,808  
1130 Connecticut Avenue, NW - Suite 1130  
Washington, D.C. 20036  
Telephone: (202) 263-4300  
Facsimile: (202) 263-4329

Enclosures: Petition for Extension of Time  
Request for Continued Examination

Dated: March 20, 2009